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EXAMINER	
KRAMER, DEVON C	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/708,854
Filing Date: March 29, 2004
Appellant(s): WORREL, PETER F.

Jerome Drouillard
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/12/07 appealing from the Office action mailed 07/17/06.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,839,800	Koga et al	11-1998
5,372,411	Gerstenmaier et al	12-1994
JP406144153	Gerstenmaier et al	05-1994

4,094,555	Byrne et al	06-1978
6,655,754	Crombez et al	12-2003

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 3-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koga et al (5839800) in view of Gerstenmaier et al (JP 6-144153). Please note that US 5,372,411 is an English equivalent to the Japanese reference.

In re claims 1 and 10, Koga et al teaches a brake controller (5) for determining a desired rate of deceleration (9) from sensor outputs (15); a regenerative braking system (4) commanded by the brake controller to produce a braking torque corresponding to the desired rate of deceleration (col. 6 lines 48-55); a primary speed sensing system (15) for determining speed and deceleration of the vehicle, a deceleration sensor (15), a brake monitor (9) for receiving the sensor inputs from the operator and for determining an audit range of deceleration; a friction braking system (24) operational as claimed. Please note that in column 6 lines 57-64, Koga et al cites that a combination of a speed sensor and pendulum sensor can be used to find the actual deceleration, but lacks the specific teaching of comparing the two values to a target deceleration or redundancy. Please note that method in claim 10 is inherent to the design of Koga et al.

Gerstenmaier et al teaches redundancy in sensors in vehicle brake systems. Gerstenmaier teaches both a deceleration sensor and a speed sensor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided Koga et al with redundancy in the sensing of the deceleration as taught by Gerstenmaier to improve the vehicle safety and ensure operation of the brakes.

In re claims 3-4, see col. 6 lines 57-64.

In re claim 5-6, it would be obvious to make the speed sensor or the pendulum sensor, the primary speed sensing system merely because they are functional equivalent of sensing deceleration and it would be a matter of design to which a person of ordinary skill in the art would desire as the primary sensor.

IN re claims 7-8, see element 11, 24 and please note that the accelerator pedal sensor is cited in Koga et al by operation of the motor. (Col. 5 lines 11-22)

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koga et al (5839800) in view of Gerstenmaier et al (JP 6-144153) and further in view of Byrne et al (4094555).

In re claim 2, Koga et al as modified by Gerstenmaier et al lacks the teaching of comparing the output of the deceleration sensor with a lower and upper deceleration target.

Byrne et al teaches comparing the output of a decelerometer with an upper and lower deceleration target value.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have compared the deceleration sensor of Koga et al as modified by

Gerstenmaier et al with an upper and lower target value in order to maintain control of the vehicle and increase stability.

Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koga et al (5839800) in view of Gerstenmaier et al (JP 6-144153) and further in view of Crombez et al (6655754).

In re claims 9 and 11, Koga et al as modified by Gerstenmaier et al lacks the teaching of a warning mechanism for a driver.

Crombez et al teaches the use of a warning indicator for a driver.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the brake system of Koga et al as modified by Gerstenmaier et al with a warning indicator as taught by Crombez et al in order to provide the driver with an indication that a failure may have occurred in the brake system insuring reliable operation of the brakes.

(10) Response to Argument

Appellant states that, Gerstenmaier does not teach or suggest comparing two values with a target deceleration, using separate systems. As stated in the rejection, Koga lacks the teaching of using a primary speed sensing system and a redundant deceleration sensor, which both achieve values, that are separately compared to a desired deceleration rate. In column 6 lines 57-65, Koga states, "Incidentally, the G sensor 15 can be of the type that a deceleration is detected by detecting a displacement

of a weight, of the type that a deceleration is calculated by differentiating a rotational speed of a wheel, a propeller shaft or the like, **or of the type that uses the above detection and calculation in combination. Irrespective of the type, any known G sensor can be adopted insofar as it can detect a deceleration of a vehicle."** Please note that Koga does teach the use of separate deceleration detecting devices each capable of sensing a value, but lacks the specific teaching of separately comparing each of these values with a target deceleration. Koga does compare a G sensor value with a target deceleration. (Column 6 lines 47-64) Gerstenmaier teaches a redundant sensor system for a vehicle. See column 1 lines 18-20. Gerstenmaier teaches both a wheel speed sensor and a deceleration sensor (Column 1 lines 30-35). Figure 3 of Gerstenmaier shows a wheel speed sensor input (11) into a first comparator (15) and a deceleration input (14) into a second comparator (16) (Column 2 lines 18-30). Please note that column 2 line 39, recites that the microprocessors (15, 16) of Gerstenmaier have comparison means. Further, Gerstenmaier teaches that the accelerations and wheel speed signals are highly relevant to the safety of the vehicle (Col. 4 lines 20-25). Please note that it is the examiners stance that it would be obvious to modify the computing means Koga to provide redundancy processing as taught by Gerstenmaier merely to increase the safety of the vehicle.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Devon Kramer

Devon Kramer 4/13/07

Conferees:

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